

REMARKS

In the Office Action, the Examiner withdrew claims 16-69 and rejected claims 1-15. By this paper, Applicants hereby cancel claims 10, 28, and 34-69, amend claims 1, 11, 16, 22, 23, and 27, and add new claims 70-85 to expedite allowance of the present application. These amendments do not add any new matter. In view of the foregoing amendments and the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Claim Rejections under 35 U.S.C. § 112, Second Paragraph

The Examiner rejected claims 10 and 11 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

The Applicants respectfully traverse this rejection of claims 10 and 11. However, the Applicants hereby amend independent claim 1 and dependent claim 11 to expedite allowance of the present application. Specifically, independent claim 1 now recites "a vapor compression cycle system comprising a condenser, an evaporator, and a compressor disposed in a closed fluid path, wherein the condenser is configured to heat air upstream of the air inlet; and wherein the evaporator is configured to cool air downstream of the air outlet." These features are clearly illustrated and described with reference to FIGS. 4 and 5 and the corresponding text in the specification. *See Application, FIGS. 4 and 5; page 10, line 14 – page 12, line 19.* The Applicants stress that the vapor compression cycle system (e.g., 258) is a specific embodiment of the generic embodiment illustrated in FIG. 3.

Thus, it appears that the Examiner is confusing claim breadth with indefiniteness. Section 2173.04 of the Manual of Patent Examining Procedure states:

Breadth of a claim is not to be equated with indefiniteness. *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). If the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise

indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. 112, second paragraph.

Again, the Applicants stress that the condenser is a specific embodiment of the generic heating device, and the evaporator is a specific embodiment of the generic cooling device. As appreciated, the vapor compression cycle system, which includes the condenser and the evaporator, provides a variety of advantages over more generic heating and cooling devices.

In addition, the Applicants stress that some embodiments may include multiple heating and cooling devices. For example, as illustrated in FIG. 5, this embodiment includes a heating device 276 that supplements the heat output provided by the condenser 260 in the vapor compression cycle system 258. In other words, the embodiment of FIG. 5 includes two heating devices, only one of which is specifically a condenser 260 of a vapor compression cycle system 258. The supplemental heating device 276 may include other types of heating devices, such as an electric heater, a combustion heater, and so forth. Again, the Applicants stress that the present claims are plainly clear and definite in view of the specification and an interpretation that one of ordinary skill in the art would reach.

For at least these reasons, among others, the Applicants respectfully request withdrawal of the foregoing rejection under 35 U.S.C. § 112, second paragraph.

Claim Rejections under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-14 under 35 U.S.C. § 102(b) as being anticipated by Berndt et al. (U.S. Patent No. 6,086,635, hereinafter “Berndt”). Applicants respectfully traverse this rejection.

Legal Precedent

First, anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). To maintain a proper rejection under section 102, a single reference must teach each and every limitation of the rejected claim. *Atlas Powder v. E.I. du Pont*, 750 F.2d 1569 (Fed. Cir. 1984). Accordingly, Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter. The prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989).

Second, if the Examiner relies on a theory of inherency, the extrinsic evidence must make clear that the missing descriptive matter is *necessarily* present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *In re Robertson*, 169 F.3d 743, 49 U.S.P.Q.2d 1949 (Fed. Cir. 1999) (Emphasis Added). The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient. *Id.* In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The Examiner, in presenting the inherency argument, bears the evidentiary burden and must adequately satisfy this burden. *See id.* Regarding functional limitations, the Examiner must evaluate and consider the functional limitation, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the

pertinent art in the context in which it is used. *See* M.P.E.P. § 2173.05(g); *In re Swinehart*, 169 U.S.P.Q. 226, 229 (C.C.P.A. 1971); *In re Schreiber*, 44 U.S.P.Q.2d 1429, 1432 (Fed. Cir. 1997). If the Examiner believes the functional limitation to be inherent in the cited reference, then the Examiner “must provide some evidence or scientific reasoning to establish the reasonableness of the examiner’s belief that the functional limitation is an inherent characteristic of the prior art.” *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Inter. 1986).

Third, the *drawings* of the cited reference must be evaluated for what they *reasonably disclose and suggest* to one of ordinary skill in the art. *In re Aslanian*, 590 F.2d 911, 200 U.S.P.Q. 500 (CCPA 1979). Arguments based on dimensions of the drawing features are of little value where the reference does not disclose specific dimensions or any indication of whether the drawings are to scale. *See Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956, 55 U.S.P.Q.2d 1487, 1491 (Fed. Cir. 2000).

Claim Features of Independent Claim 1 Omitted from Cited Reference

Turning to the claims, the present independent claim 1 recites, *inter alia*, “a vapor compression cycle system comprising a condenser, an evaporator, and a compressor disposed in a closed fluid path, wherein the condenser is configured to heat air upstream of the air inlet; and wherein the evaporator is configured to cool air downstream of the air outlet.”

The Berndt reference fails to disclose “a vapor compression cycle system comprising a condenser, an evaporator, and a compressor disposed in a closed fluid path,” as recited by claim 1. In contrast, the Berndt reference merely discloses air circulation by a fan 32 over heating coils 34 and over drying vapor condenser 36. The Berndt reference does not even mention a vapor compression cycle, much less a compressor and other

elements of the cycle. In view of these missing features, among others, the Berndt reference cannot anticipate independent claim 1 and its dependent claims.

The Berndt reference also fails to disclose “wherein the condenser is configured to heat air upstream of the air inlet; and wherein the evaporator is configured to cool air downstream of the air outlet,” as recited by claim 1. Again, the Berndt reference does not even teach or suggest a vapor compression cycle system, much less the specific components and their functions as recited in the present claim. In sharp contrast, the heating coils 34 of the Berndt reference are configured to heat air to vaporize the solvent, and the drying vapor condenser 36 is configured to cool the air to condense the vapors back to liquid. *See* Berndt, col. 4, lines 48-56. In the Office Action, the Examiner described the heating coils 34 as the evaporator and the drying vapor condenser 36 as the condenser. *See* Office Action, page 5. However, the function of the claimed condenser is to heat air, whereas the Berndt condenser 36 functions to cool the air. Similarly, the function of the claimed evaporator is to cool air, whereas the Berndt heating coils 34 function to heat the air. In view of these missing features, among others, the Berndt reference cannot anticipate independent claim 1 and its dependent claims.

For these reasons, among others, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 102.

Claim Rejections under 35 U.S.C. § 103(a)

The Examiner rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Berndt. The Applicants respectfully traverse this rejection. However, in view of the deficiencies noted above, the Applicants stress that the Berndt reference cannot support a *prima facie* case of obviousness of independent claim 1 and its dependent claims. For these reasons, among others, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 103.

New Claims

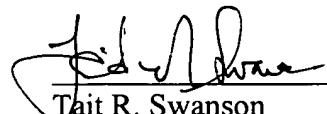
As noted above, the Applicants hereby add new claims 70-85. New claims 70-79 depend from independent claim 1, and recite additional features missing from the Berndt reference. New independent claim 80 recites, *inter alia*, a “vapor compression cycle system.” Again, the Berndt reference is clearly missing this claim feature. New dependent claims 81-82 depend from independent claim 80, and recite additional features missing from the Berndt reference. New independent claim 83 recites, *inter alia*, a “refrigeration cycle system comprising a compressor.” Again, the Berndt reference is clearly missing these claim features. New dependent claims 84-85 depend from independent claim 83, and recite additional features missing from the Berndt reference. For at least these reasons, among others, the new claims are currently in condition for allowance.

Conclusion

Applicants respectfully submit that all pending claims should be in condition for allowance. However, if the Examiner believes certain amendments are necessary to clarify the present claims or if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

Respectfully submitted,

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